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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,972	04/12/2001	Kevin Bentley McKay	OSI-0101	3837

25007 7590 07/25/2005

LAW OFFICE OF DALE B. HALLING, LLC  
655 SOUTHPOINTE COURT, SUITE 100  
COLORADO SPRINGS, CO 80906

EXAMINER

IQBAL, KHAWAR

ART UNIT PAPER NUMBER

2686

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 09/833,972	<b>Applicant(s)</b> MCKAY, KEVIN BENTLEY	
	<b>Examiner</b> Khawar Iqbal	<b>Art Unit</b> 2686	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 29 June 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1,3-15 and 17-20.

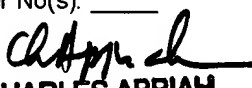
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_
13. ☐ Other: \_\_\_\_\_.

  
**CHARLES APPIAH**  
 PRIMARY EXAMINER

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments filed 6-29-05 have been fully considered but they are not persuasive. Examiner has thoroughly reviewed applicant's arguments but firmly believes the cited reference to reasonably and properly meets the claimed limitations. Applicant's argument was that "wherein each of the plurality of positioning subsystems has a time modulated receiver". In response, examiner would like to point out that (By definition: Modulation is the addition of information (or the signal) to an electronic or optical signal carrier. Modulation can be applied to direct current (mainly by turning it on and off), to alternating current, and to optical signals. One can think of blanket waving as a form of modulation used in smoke signal transmission (the carrier being a steady stream of smoke). Morse code, invented for telegraphy and still used in amateur radio, uses a binary (two-state) digital code similar to the code used by modern computers. For most of radio and telecommunication today, the carrier is alternating current (AC) in a given range of frequencies. Common modulation methods include: Amplitude modulation (AM), in which the voltage applied to the carrier is varied over time Frequency modulation (FM), in which the frequency of the carrier waveform is varied in small but meaningful amounts Phase modulation (PM), in which the natural flow of the alternating current waveform is delayed temporarily) Chien teaches FIG. 3A, the tags 401 transmit their Id signals 403 to a relay 405. In the TDOA embodiment, each relay is provided with a way of determining the time a tag transmission arrived, such as precision time elements. Such a precision time element is one which allows the determination of the difference in the time of arrival of the tag transmissions at the individual relays (col. 14, line 64-col. 15, line 10). Fig. 9, the signal from the RF tag is a spread spectrum signal, which has been modulated using binary phase shift keying techniques, the output of the amplifier 1131 is provided to a pair of mixers 1141 and 1137. (91) Mixer 1137 mixes the incoming amplified signal from the output of amplifier 1131 with a synthesized signal 1135 generated by an oscillator 1133. The synthesizer output is delayed by 90.degree. and provided to a second mixer 1141, where it is mixed with the output of the low noise amplifier 1131 (col. 21, lines 45-55). The time alignment unit 1222 accepts timing information from the correlator acquisition unit which is indicative of the timing of the estimated recreated interfering signal. The estimated recreated interfering signal is then delayed as appropriate in the timing alignment unit 1222 and then further coupled to a summation unit 1221. The composite signal also goes through a delay 1220 within the time alignment unit 1218. This delay is to compensate for the time, which the signal takes to travel in the path through the correlator acquisition unit 1203, parameter estimation unit 1204, modulator 1205 and time alignment unit 1222. The composite signal is then coupled into the summation unit 1221. In a similar manner correlator acquisition unit 1209 functions with PN code 31213 producing data for the parameter estimation unit 1210 which then recreates an estimated interfering signal which is then modulated by the modulator 1211 and coupled into the time alignment unit 1218. The interfering signal is then delayed similarly to the interfering signal in PN2 (col. 22, lines 25-65). There are a number of techniques to efficiently recover carrier synchronization, which recovers the phase and frequency of the carrier of the received modulated signal. These techniques include, but are not limited to open-loop estimation, Costas loop and squaring loop methods (col. 24, lines 30-50).